

## Factors and Processes in the Pre-Disaster Context that Shape the Resilience of Older Women in Poverty

### Abstract

**Purpose:** To explore how key factors and processes, in the pre-disaster context (specifically in the mitigation phase), shape the disaster resilience of older women who are widowed, head of household, and living in poverty in the Philippines.

**Design and Methods:** A qualitative case study design was used. Multiple data collection methods included photography/videography, semi-structured interviews, observation, and document review. Thematic analysis was the analytical method employed.

**Results:** The older women constructed that their capacity to build back better after a disaster were related to eight factors and processes, in the pre-disaster context: employment/livelihood(s), land tenure, housing, kinship relationships, healthcare disparities, spirituality/religiosity, gendered roles, norms, and stereotypes regarding older women, and their independence and dignity.

**Implications:** The main finding in the study is that employment/livelihoods play a pre-eminent role. The findings suggest that: i) research, policy and practice should focus on resilience with the “forgotten workforce,” ii) resilience-building interventions require a holistic practice model, and iii) such efforts should be developed in ways that both address the collective situation of older persons, and remain flexible to adapt to particular situations.

## Introduction

While disasters are not a new phenomenon, the intensity and frequency of them have increased and are projected to continue to escalate due to climate change, globalization, rapid urbanization, and environmental degradation (United Nations General Assembly, 2015). In this paper, disasters are defined as the inability of an individual, family/household, community, city, or country to cope, resist and recover from the negative impacts of a hazard (Wisner et al., 2012). Hazards can be (hu)man-made (e.g., armed conflict or radioactive hazards) or natural (e.g., typhoons, tornadoes, floods, volcanoes, and earthquakes). However, the lines between these two categories can be blurred, as natural hazards can have (hu)man-made origins (Dominelli, 2013). The focus of this paper is on typhoons, which may be categorized as a natural hazard, but the origins can be argued as (hu)man-made (Simon, 2012).

It is well established within the literature and policy discourse that the impacts of disasters are experienced differently, and that specific population groups or communities are more vulnerable than others. Older people living in poverty are generally categorized as a vulnerable group because often their limited access to social, economic, political, and environmental resources increase their risk to the impacts of disasters (HelpAge International [HAI], 2013a). Yet, there is a paucity of literature that recognizes and explores the complexity, particularity, and heterogeneity that characterizes this group's vulnerabilities and, more importantly their resilience within the context of disasters. Further, there can be considerable circumstantial diversity in understanding what contributes to or hinders their resilience. Context matters in terms of developing locally based resilience-building interventions. There is a need for more case-specific and context-based knowledge. Older people's resilience should be understood in both generalized and particular situations, yet the latter is largely missing from the literature.

Practitioners, policy and decision makers need to know how and in what circumstances older people living in poverty find themselves resilient (Arora-Jonsson, 2011).

Lastly, there is also a need to understand older people's resilience during the mitigation phase of the disaster risk reduction (DRR) cycle (Wisner et al., 2012). Mitigation refers to interventions that aim to prevent or reduce the negative impacts of disaster. Such efforts are made in the pre-disaster context and are more long term focused – connecting to wider development initiatives (Valdes, 2009). Literature on older people's resilience within the context of disasters is primarily focused on preparedness, response and recovery (Blinded for Review). Little attention is paid to resilience building efforts during the mitigation phase, despite this phase being a critical point of intervention. For instance, mitigation efforts focus on building resilient pre-impact conditions and contexts (e.g., physical and social infrastructures) that can reduce the risks of disasters, making such efforts to be preventative rather than reactive (Valdes, 2009). Further, the focus on mitigation encourages an examination of how wider social/development issues (such as poverty and gender inequality) in the pre-disaster context implicate individuals and groups during and after a disaster.

To address these gaps in knowledge, the purpose of this study was to explore how key factors and processes, in the pre-disaster context (specifically in the mitigation phase), shape the disaster resilience of older women who are widowed, head of household, and living in poverty in the Philippines. The specific research questions were:

- What are the key individual and environmental factors and processes in the pre-disaster context (specifically the mitigation phase) that implicate the disaster resilience of older women living in poverty, who are widowed, head of household, and living in a disaster-prone community in the Philippines?

- How do such factors and processes influence and shape disaster resilience?

## **Literature Review**

### **Resilience**

While the term, resilience, is increasingly being seen in DRR practice, policy, and research documents, the concept can still be quite nebulous (Thoren, 2014). This ambiguity is due to the multi-disciplinary roots (e.g., ecology, psychology, and social work) and variations of the term resilience (e.g., engineering resilience, psychological resilience, ecological resilience, and community resilience). Resilience is a concept that is theorized, researched, and applied in multiple disciplines, including ecology, psychology, social work, urban studies, archeology, and engineering, amongst others (Thoren, 2014). While the disciplinary roots of the concept are contested and difficult to determine, two disciplines, ecology and psychology, have focused extensively on exploring the concept of resilience beginning from the 1970s to present. The protracted discussions of resilience within these two disciplinary fields is influential to the way resilience is conceptualized in other disciplines and fields, including the field of DRR.

**Conceptualizing resilience: an ecological perspective.** There are two contrasting conceptualizations of resilience that continue to be used within the ecological literature and beyond. The first definition of resilience, termed engineering resilience, is known as the traditional/classical definition of resilience. Within this conceptualization, resilience is understood as the ability of a system to return to a state of equilibrium or a steady state after experiencing a disturbance (Holling, 1973). The measures of resilience then are how far the system has moved from this steady state and how quickly it can return to that same state. An assumption within this definition is that there is only one global or single state of equilibrium to which the system can return. Efficiency, constancy, and predictability are the focus of this

definition, and Holling (1996) stated that these attributes are at the "core of an engineer's desire for fail-safe design" (p. 33). Hence, he labeled this definition as engineering resilience.

The second definition of resilience, ecological resilience, is the contemporary definition. Within this conceptualization, resilience is understood as the ability to adjust and change into alternate states. The measure of resilience then is the degree of disturbance the system can absorb before its structure is redefined, whereby the variables and processes that control behaviour are also changed (Holling, 1973). An assumption within this definition is that there are multiple states of equilibrium that systems can achieve and not just a single or global steady state. Persistence, change, and unpredictability are the focus of this definition, and Holling (1996) suggested that all the "attributes [are] embraced and celebrated by the biologist with an evolutionary perspective and by those who search for safe-fail designs" (p. 33).

**Resilience in the disaster risk reduction field.** The concept of resilience in the DRR field is derived from the discipline of ecology and mirrors how it has evolved in that discipline. For instance, the concept emerged in the DRR literature as early as the 1980s, where it "evolved from coping or resisting into adapting, from everyday coping to long term strategic adaptation; and from stability to adaptability, to discontinuous change and to alternate stable states" (Aldunce et al., 2014, p. 257). In other words, resilience within the context of disasters has evolved from being understood as the capacity of a system (e.g., individual or community) to bounce back to their pre-disaster state to the capacity of a system to bounce back better than their pre-disaster state (Kennedy et al., 2008).

**Conceptualizing resilience: a psychological perspective.** Within psychology, resilience theory began and was refined primarily through empirical research focused on at-risk children and youth (Masten, 2014). Pioneers of the concept of resilience, Norman Garmezy, Michael

Rutter, and Emmy Werner were originally focused on children at risk of developing psychopathological disorders due to life circumstances such as having a parent with a mental illness or inter-parental conflict. They found that many at-risk children were thriving despite the adverse life circumstances they were encountering. Thus, the focus shifted from trying to identify factors that led to negative outcomes such as disease, dysfunction, and disorder to trying to identify predictors of positive outcomes.

There are four generations or waves of resilience research in the field of psychology (Masten, 2014). The focus on identifying personal factors of resilience was characteristic of the first wave of resilience research. The second wave was concerned with identifying processes of resilience, with a greater recognition that resilience is not just internally derived, but externally as well. With the inclusion of external factors, the idea that resilience could be fostered became a possibility. The third wave of resilience research was intervention-focused, and it sought to answer the question: how can we use this knowledge and understanding of factors and processes of resilience (both personal and ecological) to develop and design “appropriate prevention and intervention strategies” (Luthar et al., 2000, p. 544).

Resilience researchers Liebenberg and Ungar (2009) advanced that a fourth wave is currently underway. This fourth wave, they argued, concentrates on decolonizing resilience theory, whereby there is an explicit recognition that resilience theory and subsequent interventions have emerged and are dominated by Western ideologies and experiences. Culture and context, then, are given prominent consideration in an understanding of resilience, and the subsequent intervention strategies developed. This fourth wave does not make knowledge gained from the previous waves defunct; rather, “each wave remains part of a larger body of thought

that is focused on people's successful growth rather than breakdown" (Ungar & Liebenberg, 2009, p. 6).

**Resilience as conceptualized in this study: a socio-ecological approach.** In this study, a socio-ecological perspective of resilience was adopted, which is a comprehensive and multidimensional conceptualization of resilience that moves beyond individual/personal traits to include relationships factors, community contexts, cultural factors, and physical ecology factors (Ungar, 2013). Resilience was conceptualized in this study in the following ways. Firstly, resilience was a set of intersecting factors and processes that occur at the individual and environmental level, with the latter as more important. By prioritizing the environmental factors and processes in implicating resilience, it follows that interventions should focus on fostering environments that facilitate resilience. Secondly, resilience was not considered an innate nor static construct; it was fluid and malleable to personal, circumstantial, and cultural variation. Thirdly, resilience was considered within the context of disasters, and specifically in the mitigation phase (pre-disaster times). Therefore, resilience was defined as the capacity of individuals and their environments to mitigate the impacts of disasters in such a way that also addresses longer term development challenges (Drolet et al., 2015). In this way, resilience was more than simply building back to pre-disaster conditions but rather about building back better (Mannakkara & Wilkinson, 2014).

### **Older Persons: A Vulnerable Group**

Older persons are generally categorized as a vulnerable group and have been disproportionately impacted by disasters. For example, in 2005 during Hurricane Katrina 75% of the disaster related deaths were older people (60+) despite representing only 16% of the total population (Wilson, 2006). In 2011, when the Japanese tsunami struck, just over half (56%) of the

disaster related deaths were older people (65+) even though they made up 23% of the entire population (HAI, 2013a). Older people (60+) constituted 23% of the subsequent deaths in 2013 from the typhoon Haiyan in the Philippines, despite representing a mere 7% of the total population (HAI, 2013b). The disproportionate mortality rates of older people and what can be done to enhance their resilience to such disasters cannot be explained by age alone, but by intersecting factors and processes (Blinded for Review).

### **The Role of Gender, Age, Marital Status, and Income/Financial Capacity in Shaping Disaster Resilience of Older Persons**

While a paucity of literature exists exploring the multiple, complex, and intersecting drivers that characterizes older people's resilience within the context of disasters, there is evidence to suggest that gender, marital status, and income/financial capacity play a role. In Kohn et al.'s (2005) quantitative study, which aimed to identify risk factors of psychopathological reactions of 103 older persons (60+) affected by the 1998 Hurricane Mitch, they found that being female, not being married/living with a partner, and having a lower income were all significantly associated with higher disaster-related stress and negative psychological outcomes (e.g., PTSD). In a mixed-method study examining the impact of the 1999 Chi-Chi earthquake on the quality of life of 368 older persons (65+), Lin et al. (2002) found that being female and not being married/living with a partner was significantly associated with larger drops in physical capacity scores from pre to post-disaster. Similarly, Seplaki et al. (2006) found, in their quantitative study examining the depressive symptoms of 1150 older persons (50+) before and after the Chi-Chi earthquake, that being female and having lower income/financial capacity was significantly associated with higher post-disaster depressive scores. Income/financial capacity was also found to be predictor of negative post-disaster mental health outcomes in



Acierno et al.'s (2006) quantitative study that examined risk and protective factors for psychopathology among 1130 older persons (60+) affected by the 2004 Florida hurricanes. The findings in these studies suggest that older women, who are not married/living with partner, and have a lower income/financial capacity are more likely to have less favorable post-disaster related health and well-being outcomes. This sub-cohort is an important focal point for future research. Further research is needed examining why such demographic markers are related to disaster related risks and vulnerabilities and what can be done to enhance resilience.

### **Disaster Risk Reduction: Mitigation, Preparedness, Response and Recovery**

DRR (and resilience building) can be viewed in four phases: mitigation, preparedness, response, and recovery (Contreras, 2016). As mentioned earlier, the mitigation phase is focused on the pre-disaster context and interventions are focused on addressing root causes of vulnerabilities, such as poverty and inequality (Wisner et al., 2012). Preparedness efforts are also made in the pre-disaster context but are more focused on enhancing the capacity to effectively respond to disaster exposure (e.g., the development of emergency kits or evacuation plans). The response phase occurs during and immediately after a disaster and efforts include, for example, search and rescue operations and distributing relief goods. Recovery efforts follow the response phase and are both short and long term but aim to return the impacted community to a new state of normalcy. Such efforts include for example, restoring and improving physical infrastructure and livelihoods. Importantly, there are overlaps between the phases and resilience building is not a linear process.

### **Philippines: A Disaster-Prone Country**

In the 2016 World Risk Report, the Philippines was ranked the third most disaster-prone country in the world (Bündnis Entwicklung Hilft [BEF] & UN University – Institute for

Environment and Human Security [UNU-EHS], 2016). The country's geographical and geological attributes (e.g., resting along the Ring of Fire, situated on the typhoon belt, warm water temperatures, and low-lying coastal islands) are reasons why the country is so disaster-prone (Asian Disaster Reduction Center, 2016; BEF & UNU-EHS, 2016). Compounding these circumstances is the Philippines' poverty incidence. In 2009 and 2012 the total number of people living below the national poverty line were 23 million and 23.7 million, respectively (Castro, 2015). Older persons made up 4.26% and 4.41% of the total poor population in 2009 and 2012, respectively (Castro, 2015). Poverty and disasters are interlinked, as disasters can perpetuate the cycle of poverty, by “depriving the poor of their assets, livelihoods, and labour force” (United Nations International Strategy for Disaster Reduction, 2008, p. iii).

### **Research Design and Methods**

A qualitative case study design (Merriam 1998; Stake 1995) was used for the study, because it is an approach to inquiry that: i) explicitly produces context-based knowledge, ii) attunes to complexity whereby the focus is numerous variable in a single unit, iii) teases out the particulars (rather than making statistical generalizations) about a phenomenon or population group. As such, it was an appropriate methodology for addressing the research aim.

### **Research Site and Recruitment**

The Coalition of Services of the Elderly (COSE), a local non-governmental organization that works with older people living in poverty in the Philippines, assisted in the selection of the research site and recruitment of participants. The research site was the community of Apitong, in Tacloban City. Apitong was selected because it was deeply affected by the 2013 typhoon Haiyan disaster (Lagmay et al., 2015). Figure 1 is a general map (Google, n.d.) of the research site.

[insert Figure 1]

Purposive sampling was used to recruit four participants. Yin (2012), a principle author of case study research, stated that "unlike experimental research designs, where power analysis may be conducted to formulate the necessary sample size, no such formulas exist for case studies" (p. 8-9). Further, case study research is usually considered "small-*N*" research with the smallest acceptable sample size as one (Seawright & Gerring, 2008, p. 301). The sample size of four was determined based on pragmatic reasons, as it was a number manageable based on the planned contact time with each key informant and the resources available (e.g., only one field researcher). Also, Vasileiou et al. (2018) argue that while "numbers in qualitative research are not unimportant, sample size should not be considered alone but be embedded in the more encompassing examination of data adequacy" (p. 15). Data adequacy includes for example if there were "adequate amounts of evidence" and "adequate variety in kinds of evidence" (p. 15). Thus, while the sample size of four may be considered small (and identified as a limitation of this study) the depth and duration of the planned data collection (explained in detail in the data collection section) in this study contributes to data adequacy.

Criteria used to select respondents were: i) 60 years of age and older; ii) living in poverty; iii) widowed women; iv) head of the household; and v) living in the same disaster-prone community, during the time data was collected. Poverty was measured utilizing an adapted version of the Multi-dimensional Poverty Index (MPI), which included ten indicators across four dimensions: education (two indicators), living standards (six indicators), health (one indicator) and income (one indicator) (UNDP & OPHI, 2016). Deprivation in three or more indicators connoted poverty, and the greater number of indicators revealed a greater severity of poverty. Participants had to be deprived in at least three indicators to be able to participate in this study. The criteria were provided to a contact in Apitong to invite four potential participants to an

orientation. Four older women were present at the orientation and all expressed further interest. A follow up one to one meeting was arranged with each woman in their homes, as part of the extended informed consent process and to ensure all criteria were met. Ethics approval from the University of Calgary Conjoint Faculties Research Ethics Board (CFREB) was obtained to conduct this study.

### **Data Collection**

Multiple data collection methods were used and included photography/videography, semi-structured interviews, observation, and document review. Collecting data in multiple ways and having different types of data sources (e.g., photos, videos, transcripts), was one validity strategy used as it enabled triangulation (Merriam, 1998). Data collection occurred between March 9<sup>th</sup> and October 7<sup>th</sup>, 2016 (approximately 7 months).

**Data collection process: observation and document review.** For the first month and a half, data was collected using only observation and document review and was separate from working with the research participants. The purpose of collecting this data was to help highlight "real-world issues and day-to-day concerns," (Merriam, 1998, p. 126), which helped to build a better picture of the context (mainly related to older people in the Philippines) that was important to understanding the case. Additionally, data collected through these two methods would stimulate further thoughts about important questions to pursue through the interviews.

Data via observation were collected in a variety of settings. For example, observing events and meetings such as a half-day conference in Manila regarding universal social pension in the Philippines or monthly meetings organized by the Older People Organization (OPO) of Apitong. Documents were collected in various ways. For instance, the researcher was invited by a COSE staff member to observe a couple of Disaster Risk Reduction meetings in Tacloban City,

and the agenda was included as one of the documents. Other examples of documents collected were the reports and leaflets handed out during the half-day conference regarding universal social pension in the Philippines.

**Data collection process: photography/videography and interviews.** Prior to the data collection through photography/videography and semi-structured interviews, the participants were trained through three separate workshops on how to use a camera and the ethics surrounding photo/video-taking. Then throughout the data collection period for the interviews, the participants were instructed to take photos/videos based on bi-weekly topics related to the interview guides (e.g., resources and challenges in the community, current support networks, and people that helped to build back after the disaster). The photos/videos were primarily used to further illicit discussion in the interviews. A total of 4 focus group (whereby all four participants were in attendance for each session) and 6 one-to-one interviews (with each participant, for a total of 24 interviews) were conducted. The one-to-one interviews were mostly carried out at the participants' homes, except for the times when it was more convenient for the participant to meet somewhere else (e.g., the researcher's resident, which was along the main road toward the market and sometimes it was easier to meet there if the participant wanted to conduct the interview prior to running an errand at the market). In all the one-to-one interviews, the only people present were the participant, the author, and the translator. Occasionally, a participant's grandchild (who was too young to be in school yet) would be present, as the participant had caregiving duties that day.

The focus group discussions and workshops were intended to be conducted at the community health centre, however the times that would work best for the participants (often Sundays) conflicted with the hours of the centre and thus the researcher's resident which was

across from the centre was used to conduct all focus group discussions, which also enabled more privacy than the health centre. All the one-to-one and group interviews were conducted in Tagalog and a translator (who was also responsible for the transcriptions) was present along with the author. The translator was a college student (and her topic of study was in Education) who lived with her family in Apitong (the community where the participants also lived). Confidentiality issues were discussed in length with the translator and a confidentiality agreement was signed by the translator. She was known to the participants, and they mentioned several times throughout the research process (when prompted to discuss in the interviews and focus groups, how they felt about their participation thus far) how grateful they felt that she was the translator to assist them as they felt comfortable with her. Furthermore, from the researcher's field notes it was observed that the participants seemed more relaxed when the translator was present, rather than being just alone with the researcher. In the next section, details about the focus of each individual and focus group interview are provided.

***Individual interview one and focus group interview one.*** To gain insight into the local context, the community of Apitong was the topic of discussion for individual interview one and focus group one. A week prior to individual interview one and focus group one, participants were asked to take photos ( $n=3-4$ ) and videos ( $n=1-2$ ) (each under a minute) of people, places, and things that best described their community (e.g., what were the livelihoods of individuals, where do people gather in the community, and who were the influential community leaders). They were told that there was no right or wrong answer, and it was a matter of their own personal perspective.

At individual interview one, each participant was asked to share her photos and videos and how these products gave a better picture and understanding of Apitong. At the end of the

interview, they were asked to select a photo or video to share and talk about when we met the following week for focus group one. The purpose of the group interview was threefold: i) for participants to discuss what was unique and shared between their responses to each assignment, ii) for new knowledge and ideas about the community to emerge, and iii) an opportunity for the researcher to ask follow-up questions based on the responses of individual interview one.

Individual interview one and focus group one was audio-recorded, translated, and transcribed.

***Individual interview two and focus group two.*** Factors and processes that have helped or hindered the participants during and after disasters were the topics of discussion in individual interview two and focus group two. The purpose of the interviews was to gain an initial and broad overview of resilience within the context of disasters. The broad questions included: What has helped you the most to build back, after disasters? Who has helped you the most in building back after disasters? What resources have been provided to you to build back after disasters? and How do you think your beliefs, attitudes, and personal characteristics have helped you to build back after disasters? The responses to these questions helped to inform more distinct questions for individual interview four, five, and six.

These two interviews followed the same process as individual interview one and focus groups one (e.g., one week to take photos and videos, share photos and videos, discuss individually, and then collectively), but with different questions. Individual interview two and focus group two were audio-recorded, translated, and then transcribed.

***Individual interview three.*** Personal background information and life stories were the topics of individual interview three. The interview began with a structured set of questions to obtain demographic information (including age, highest level of education obtained, religious affiliation, living arrangements, livelihood sector [formal/informal], source(s) of livelihood or

employment, household income, and recipient of social pension [yes/no]). Then, a life review type of interview (Butler, 1974) was conducted. Robert Butler (1974), a foundational gerontologist, championed the idea of a life review, which is the process of self-reflection on the development of personal life histories, with older people. The purpose of facilitating the life review interview was two-fold, to gain further insight into the participants' personal and historical contexts, and to provide an opportunity for building rapport with the participants. Unlike individual interview one and two, a follow-up focus group was not conducted for individual interview three because the information collected were more personal and intimate. Further, participants were not asked to take any photos or videos for this interview. Individual interview three was audio-recorded, translated, and transcribed.

***Individual interview four, five, and six.*** The topics for individual interview four, five, and six were related to: health; housing and land tenure; and relationships and culture, respectively. Mainly, how these topics were related to resilience within the context of disasters. For instance, some of the questions asked regarding housing included: How was your house affected from the disaster (specifically, typhoon Haiyan)? Who helped you to rebuild your house, and how did they help? Do you feel safe in your house if another disaster were to occur? Please explain. These topics were chosen based on a literature review co-authored by the researcher (Blinded for Review) and from further probing after a preliminary analysis of the transcripts of the previous interviews was conducted. The initial analysis highlighted that these topics were discussed across all four participants. All three interviews were audio-recorded, translated, and transcribed.



*Focus group three and four.* Both focus group three and four were used as a way to ensure the accuracy of the findings. During both focus groups, the results of my preliminary analysis of the key factors and processes in the pre-disaster context that influence the participants' disaster resilience were presented. The accuracy of the themes and other emergent ideas related to older people's disaster resilience were discussed. The primary purpose of these two focus groups were to conduct a member-check, ensure that the themes were accurate, and make any changes necessary. Focus group three and four was audio-recorded, translated, and transcribed.

### **Data Analysis**

Thematic analysis (TA) espoused by Braun and Clarke (2006) was the analytical method employed. It involved six phases: 1) data familiarization, 2) development of initial codes, 3) identifying themes, 4) reviewing themes, 5) defining and labeling themes, and 6) creating the report. The rationale for utilizing TA was due to the flexibility of the strategy. For instance, it could be used across research paradigms, data collection methods, and types of data (e.g., visual and textual). This flexibility was necessary when considering the multiple data collection methods and different types of data that needed to be analyzed for the study. Data analysis were done continuously and recursively, alongside data collection.

**Analysis of interview transcripts, photos, and videos.** Data collected from the interviews included: 28 researcher-generated photos, 3 researcher-generated videos, 28 transcripts (24 one-to-one and 4 focus group interviews), 30 participant-generated photos, and 4 participant-generated videos. The number of photos and videos included in the data set was less than the total number collected because only the photos and videos that were not discussed and analysed during the interviews (e.g., photos and videos that had no supporting textual data) were

added. Byrne (2014) suggests that visual data can be categorized into three groups: i) visuals “with no textual support,” ii) visuals “with limited textual support,” and iii) visuals with “full textual support” (p. 31). The reason for excluding the photos and videos that participants had selected to discuss during interviews, was that it was already included in the textual data via the interview transcripts. The visuals that were excluded fall into the third and rather than constituting a data item themselves, their primary role was to elicit verbal data from the participants (Byrne, 2014, p. 38). The decision to exclude those visuals were made by the researcher to align with other studies that used this approach to analyse photos with full textual/verbal support (Dennis et al., 2009; Sharples et al., 2003)

The following section delineates the focus of each stage as espoused by Braun and Clarke (2006) and the decisions and actions taken in this study from stage 1 to 5. The recommendations in phase 6 were similar to presenting findings in qualitative research generally and thus were not detailed below.

***Stage one: data familiarization.*** At this stage of analysis, the focus is on immersion, whereby the analyst conducts repeated readings of the data items (e.g., transcripts or documents collected) (Braun & Clarke, 2006). The reading is done in an active way, which includes writing down initial thoughts on the features of the data or even preliminary ideas for codes (Braun & Clarke, 2006). For the textual data, the researcher read each data item at least twice, writing down notes about initial thoughts. For example, it was noted that in one transcript, the interviewee's responses were brief and not very descriptive. Thus, the researcher included more probes in the subsequent interviews. After reading each data item, ideas for possible codes were also written down. For the visual data, the researcher reviewed each photo and video and wrote brief notes under four categories. The first concerned the general content of the photo or video

(e.g., the people, places, things, or activities being captured). The second, concerned which week the photo or video was taken (e.g., was it taken during the week when the discussion topic of the interviews was about describing the local context of Apitong). The third, concerned who took the photo or video (e.g., participant or researcher). The fourth and last, involved ideas for possible codes for each picture or video. This initial stage was implemented every time a data item was collected. Since data collection and analysis spanned approximately seven months, this stage was helpful to produce notes to refer to during the subsequent stages.

*Stage two: development of initial codes.* At this stage of analysis, Braun and Clarke (2006) stated that the focus is on formally developing a code list. In TA, coding can be inductive, deductive, or a blend of both (Braun & Clarke, 2006). For this data set (the interview transcripts, photos, and videos), a hybrid approach to coding was used. Even though older people's resilience within the context of disasters is an under-researched topic, there was evidence in the literature that support some themes to be explored in different contexts or at least encourages further investigation of such patterns. Based on a literature review (Blinded for Review) co-authored by the researcher, 10 pre-determined codes were used: living arrangements, individual health and functional status, prior experiences with disasters, personal characteristics and behaviours, income/financial capacity, social support, critical care systems, culture, risk communication processes, and disaster exposure. It was ensured that this list was not too long, as not to hinder the generation of new codes, which Merriam (1998) suggested can often provide the most relevant and unique insights about the data. The researcher was not restrictive in identifying codes because Braun and Clarke (2006) noted that, at this stage, it was essential to "code for as

many potential themes/patterns as possible (time permitting) – you never know what might be interesting later" (p. 89).

When coding a data item, the researcher extracted segments of text which were (potentially) relevant to the research question. The data obtained (or unit of data) was either a phrase, sentence, a section of a paragraph, or a paragraph, but it was not a single word nor was it longer than a paragraph. It was acknowledged that "a unit of data can be as small as a word a participant uses to describe a feeling or phenomenon, or as large as several pages of field notes describing a particular incident" (Merriam, 1998, p. 179). However, it was decided that a single word would not suffice, as Braun and Clarke (2006) suggested to "code extracts of data inclusively – i.e., keep a little of the surrounding data if relevant, [as] a common criticism of coding is that the context is lost" (p. 89). Also, anything beyond a paragraph was too unyielding, specifically at this early stage of analysis, which was focused on identifying the "bits of information" (Merriam, 1998, p. 179). At this juncture, each data extracted could have more than one code applied to it. For the visual data, the researcher reviewed the notes she wrote in stage one associated with each photo or video, and then coded the entirety of the picture or video. Since the videos were all under a minute (or even shorter), it was decided not to code based on sections of the video, but rather code the video in its entirety.

The last point to note at this stage was that coding, regarding this data set (transcript interviews, photos, and videos), was done more at the semantic rather than latent level (Braun & Clarke, 2006). The former is coding at the descriptive level, whereby analysis does not go beyond what is written and said by the participants or what is seen in the photo or video. It only entails describing the extracted textual or visual content. In contrast, the latter is a more interpretive level of coding. While it was acknowledged that there was some degree of latent

coding done, the researcher was mindful to be coding more at the descriptive level at this stage and leave the interpretive level of analysis to be conducted in the following phases (e.g., during theme identification).

Like the previous stage, the researcher went through the steps in this stage as she received a data item. File folders were set up on a laptop, whereby each file folder coincided with a code. As the researcher continued through data collection and analysis, relevant data extracts to the file folders (corresponding codes) were added or new file folders representing new codes were created.

***Step three: identifying themes.*** This stage of analysis is aimed at identifying the candidate or potential themes, which Braun and Clarke (2006) noted are broader patterns of meaning in the data. A potential theme is generated by sorting and re-sorting the codes developed in the previous stage. Questions that, Braun and Clarke (2006) suggested, that would guide this process, which the researcher also used, were: Which codes are similar so that they can be combined? Which codes needed to remain distinct and should not be collapsed with others? Which codes can be combined but still needed to be distinguished (e.g., creating sub-themes)?

To help with the sorting and re-sorting of codes into potential themes, half-letter sized papers with content on both sides were printed off. On one side was the word or phrase for the code in large font size, and on the other were data extracts, photos, and videos associated with the code. Each photo and video had been saved with an identifying number on the laptop, and this number was put on the back of the paper. Utilizing some visual representation was suggested by Braun and Clarke (2006) at this stage of analysis.

At this stage, a candidate theme was identified in one of two ways. First, the researcher decided that a theme can be generated based on consistency. Consistency was defined in this study as occurring across all four participants. Thus, there must be data extracts that were linked to each participant under a specific theme (e.g., extracted data from the individual interviews of each participant could be found). The second way of generating a theme was asking whether "it capture[d] something important in relation to the overall research question[s]" (Braun & Clarke, 2006, p. 83). Generating a theme based on this criterion was challenging. The researcher needed to balance between ensuring that it was not anecdotal, "where one or a few instances of a phenomenon are reified into a pattern or theme when it or they are actually idiosyncratic" and the level of analysis was restricted to be descriptive only (Braun & Clark, 2006, p. 95). Albeit, the two-step quality control process in the next phase of TA analysis was an additional check to ensure such a balance was kept.

***Stage four: reviewing themes.*** The aim at this stage of analysis is to examine and refine the candidate themes and sub-themes (Braun & Clarke, 2006). The built-in quality control process noted earlier in the section was employed here. The first step of the two-step process, entailed the researcher reviewing all the coded data extracts under the theme and assessing whether the contents "appear to form a coherent pattern?" (Braun & Clarke, 2006, p. 91). Was there a core idea that connects all the bits of information (textual and visual) catalogued under a specific theme? If the answer was no, then the researcher did what Braun and Clark (2006) suggested which was more sorting and re-sorting of codes and data extracts. For instance, there were times that one or a few of the data extracts did not fit under a theme and it needed to be placed under either an existing theme, a new theme, or if the data extracts did not fit at all, it needed to be excluded from analysis. Alternatively, if the answer was yes, then the researcher did

what Braun and Clarke (2006) suggested, which was to move to the second step and review the candidate theme to the entire data set. This second step required the researcher to re-read the whole data set and code any additional pieces of information for themes that may have been missed in earlier stages. Furthermore, it was a way for the researcher to check if she had generated a theme anecdotally. Braun and Clarke (2006) argued that such unique features of the data may reveal interesting insights, "but it is important not to represent them as an overarching theme" (p. 95).

***Stage five: defining and labeling themes.*** At this stage, the researcher formally defined and labeled each candidate theme as was suggested by Braun and Clarke (2006). Furthermore, at this stage, sub-themes were identified and described. Sub-themes are themes within a theme, and "are useful for giving structure to a particularly large and complex theme, and also for demonstrating the hierarchy of meaning within the data" (Braun & Clarke, 2006, p. 92). For each theme and sub-theme, the researcher wrote a detailed analysis reflecting on the core idea being expressed and as well how each theme related to the overall message identified. To test, whether the themes were clear and concise, Braun and Clarke (2006) recommended the researcher, at this stage, to "describe the scope and content of each theme in a couple of sentences [and if the researcher is unable to], then further refinement of the theme may be needed" (p. 92).

**Analysis of document review and observation.** Data collected from observation and document review included, 10 pages of field notes and 22 documents respectively and was analysed separately from the photos, videos, and interview transcripts. The rationale for using these two data collection methods was to inform the description of the context of the case. Thus, the generation of codes and themes were different from the data obtained from the transcripts, photos and videos. The six stages of TA detailed above was also applied to analysing this data

set. Albeit, the difference was that coding (and the generation of themes) was done deductively and at the semantic level (throughout all six stages). The pre-determined codes (and themes) for this data set included: demographic setting, social policies, economic context, socio-cultural context and health care setting.

## **Results**

### **Participants**

[insert Table 1]

### **Description of the Context**

**Demographic setting.** Based on the 2015 census, the total population of Tacloban City was 242,089 persons; the total number of households was 50,547, and the average number of persons per household was 4.8 person (Philippines Statistics Authority [PSA], 2017). Tacloban City is made up of 138 barangays (or communities). Aptiong (the community where my research was conducted in) is one such barangay and was the 13<sup>th</sup> most populated barangay in the city (PSA, 2017). The total population of Aptiong was 4946 persons, comprised of 1008 households with 4.9 as the average number of household residents.

The Philippines has a relatively young population with the median age at 24.3 years old (PSA, 2017). The largest age group in the country were children aged 0 to 9 years old. The age dependency ratio was 58 to 100, which meant that for every 58 persons who were of a dependency age (children aged 0-14 and older persons aged 65+) there were 100 persons who were of economically productive age (aged 15-64). Of those who were of a dependency age, 31.8% were children, and 4.7% were older people.



Regarding religious affiliation, based on the 2015 Census, 79.5% (or 80,304,061 persons) of the total population identified as Roman Catholic (PSA, 2017). Islam represented the second largest religious affiliation, accounting for 6%, of the total population. Iglesia ni Cristo and Evangelicals (Philippine Council of Evangelical Churches) were the third and fourth largest religious affiliations accounting for 2.6% and 2.4% of the total population, respectively. The remaining people were categorized by the PSA as “other religious affiliations” (para. 14).

**Social policies.** Regarding specific social policies relevant to older people in the Philippines, the country has a national policy on ageing titled, the Expanded Senior Citizens Act of 2010 (or Republic Act [RA] no 9994). This act has gone through a series of amendments. The first iteration was in 1992 (Senior Citizens Act of 1992 or RA no. 7432), which was basic in its provisions such as affording older people (60+) medical-related privileges (e.g., 20% discount on the purchase of medicines, medical supplies and equipment, medical and dental services, professional fees of physicians and other licensed health workers, and home care). A provision of the RA no. 7432 was also to establish the Office for Senior Citizens Affairs (OSCA) in cities and municipalities, the purpose of which was primarily administrative, as it was responsible for issuing the senior citizen’s identification (ID) cards. The ID cards are necessary to present when availing any of the privileges and benefits detailed in the Act.

In 2003, RA no. 7432 was amended and retitled as the Expanded Senior Citizens Act (or RA no. 9257) to extend discounts and privileges to various sectors, including the transportation, recreational, and funeral services sector, amongst others. Other notable provisions in the amendment included, for example, exemption fees for older people to participate in social and economic related programs offered by both the private and government sector and exemption from the payment of individual income tax for minimum wage earners.

RA no. 9257 was amended in 2010 (known as the Expanded Senior Citizens Act of 2010 or RA no. 9994). A notable provision was the introduction of social pension, whereby all older people who were indigent, defined as 60 years of age and older who were “frail, sick or with disability, and without pension or permanent source of income, compensation or financial assistance from his/her relatives to support his/her basic needs,” were eligible for a monthly social pension of PHP 500 (approximately CAD 12.40) that was paid quarterly (Expanded Senior Citizens Act of 2010, sec. 3). During the initial implementation of the program (in 2011), fiscal challenges limited the coverage to only older people who were indigent and were 77 years of age and older (Coalition of Services of the Elderly [COSE] & HAI, 2016). However, it was later expanded in 2015 to include older people 65 years and older, which has not yet met the initial age (60+) set by the Act. In 2015, this means-tested social pension program made up only 0.08% of the total GDP and had a 20% coverage (approximately 940,000 individuals) (World Bank, 2016). This coverage was relatively low compared to Thailand and Vietnam (the Association of Southeast Asian Nations [ASEAN] counterparts of the Philippines), whose pension coverage was at 81.7% and 43.8%, respectively (HAI, 2015). The ASEAN member states are Brunei, Cambodia, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

In 2014, RA no. 9994 was further amended. The new provisions provided mandatory social insurance coverage (via the National Health Insurance Program [NHIP] detailed later in the description of the healthcare setting) for all older people. Furthermore, the amendments included a provision specific to older people and disasters:

Social safety assistance intended to cushion the effects of economic shocks, disasters and calamities shall be available for senior citizens. The social safety assistance which shall

include, but not limited to, food, medicines, and financial assistance for domicile repair, shall be sourced from the disaster/calamity funds of LGUs where the senior citizens reside, subject to the guidelines to be issued by the Department of Social Welfare and Development (DSWD). (Expanded Senior Citizens Act of 2010, sec. 5c).

**Economic setting.** The Philippines is a lower-middle income country, which is defined as a country with a GNI per capita between USD 1,026 and USD 4,035 (World Bank, 2018). The country's 2017 GDP per capita was at USD 3,550 (Asian Development Bank, 2017). From 2010 to 2017 the country had experienced a GDP growth rate that averaged 6.3%, which made the Philippines, consistently, one of the fastest growing economies in Southeast Asia. However, concerning income inequality, the Philippines' Gini Index remained relatively high at 40.1 in 2015, which was based on the most recently available data for the country (World Bank, 2018). The Gini Index, the most commonly used measure of inequality in a country, measures the extent to which the distribution of income or consumption expenditure of individuals or households deviates from perfect equality, whereby the number 0 represents perfect equality, and 100 represents perfect inequality (World Bank, n.d.). A measure of 40 "is widely considered the threshold for high inequality" (ADB, 2014, p. 23).

The poverty incidence in the Philippines was at 21.6% in 2015 (World Bank, 2018), which meant that almost a quarter of the population fell below the national poverty line. According to the most recently available data for each country, the Philippines' poverty incidence was also markedly higher than half of the ASEAN member states, which included: Malaysia (0.6% in 2014), Thailand (10.5% in 2014), Indonesia (10.9% in 2014), Vietnam (13.5% in 2014), and Cambodia (17.7% in 2012).

Regarding older people and poverty rates, HAI (2015) showed in the data from the Global Age Watch Index (HAI, 2015), an index measuring the quality of life and well-being of older people across different countries through various indicators (including old age poverty rate), that the Philippines had an old age poverty rate of 13.7%. That is 13.7% of older people (60+) had an income that was less than half of the country's median income. The country's old age poverty rate was also higher than some of its ASEAN member state counterparts including, Lao's People Democratic Republic (4.5%), Cambodia (6.2%), Indonesia (12%), and Vietnam (12%).

Labour and employment figures also helped to provide a glimpse of the economic context of the Philippines. As of July 2017, the labour force population (which included people 15 years of age and older who were either employed or seeking employment/unemployed) was about 42 million or 60.6% of the total population of people aged 15 years and older (PSA, 2018). Of this labour force, 4.1% were 65 years of age and older. Underemployment in the Philippines, defined as those "who express the desire to have additional hours of work in their present job, or to have an additional job, or have a new job with longer hours," was at 16.3% (an estimated 6.5 million persons) of the total number of employed people (PSA, 2018, para. 8). The unemployment rate was registered at 5.6% (an estimated 2.4 million persons) of the total labour force population.

Shifting to the local economic context, Tacloban City was known as "the regional centre for trade, tourism, education, culture and government in Eastern Visayas" (PSA, 2013, p.1). In 2008, the city's status was classified as a first class highly urbanized city (HUC), defined as a city "with a minimum population of two hundred thousand (200,000) inhabitants, as certified by the National Statistics Office, and with the latest annual income of at least Fifty Million [Philippine] pesos (PHP 50,000,000.00)" (PSA, n.d., para.1). According to the PSA (2016) based

on 2012 data Tacloban City had one of the lowest poverty rates in the country, at 9.8%.

However, as Tacloban was the hardest hit city with almost all of its basic infrastructure destroyed by typhoon Haiyan in November 2013 (Lagmay et al., 2015), the local economic context and, in particular, the poverty incidences may have changed.

**Socio-cultural setting.** In this section, several key concepts and ideas are presented that provide an overview of the Filipino socio-cultural context. It is important to note that this presentation of the context was limited in two ways. Firstly, as a cultural outsider (limited by the researcher's Western worldview) it was challenging for the researcher to "see values in terms of the Filipino worldview, experience, and milieu" (as cited in Mangubat, 1999, p. 92). Secondly, the description of any culture at one point in time is limited by the fluid and dynamic nature of culture (Kashima, 2014). Therefore, it is important to keep in mind that, what Uricchio (2005) stated that "there are good reasons to think carefully about [cultural] concepts that seem almost naturally to bind our experience and define our institutional practices; but if we press too hard, we risk dissolving the very categories that we seek to understand" (p. 29).

In his description of the Filipino indigenous value system, Virgilio Enriquez, a leading scholar of *Sikolohiyang Pilipino* or Filipino psychology, explained that the core value of *kapwa*, which means shared identity, undergirds the whole value system (Mangubat, 1999). *Kapwa* refers to how the inner self and identity of Filipinos is shared among fellow human beings. There are two categories of *kapwa*, and each category is guided by a different set of values and social interactions (Pe-Pua & Protacio-Marcelino, 2000). *Ibang-tao* (which means other people or outsiders) represents one category, and social interactions and values are geared toward, for example, "*pakikitungo* (transaction/civility with), to *pakikisalamuha* (interaction with), to *pakikilahok* (joining/participating), and to *pakikibagay* (in-conformity with/in accord with)" (p.

56). In contrast, *hindi-ibang-tao* (which means “one of us”), the second category of *kapwa*, is guided by social interactions and values such as “*pakikipagpalagayang-loob* (being in-rapport/understanding/acceptance with), or *pakikisangkot* (getting involved), or the highest level of *pakikiisa* (being one with)” (p. 56). The central and organizing value of *kapwa* is what drives and influences other dominant cultural Filipino values, including the three most commonly held Filipino values: *utang na loob*, *pakikisama*, and *hiya* (Mangubat, 1999).

*Utang na loob*, which means “a debt of gratitude,” is the value towards gratitude and solidarity (Pe-Pua & Protacio-Marcelino, 2000, p. 55). It is the idea that within all interpersonal relationships there exist “an opportunity to return a favor,” and this favor can be repaid in the immediate future or through the next generation (Pe-Pua & Protacio-Marcelino, 2000, p. 56). For instance, the expression of *utang na loob* can be witnessed through the Filipino perspective towards the elder care of the ageing parent, which ultimately rests on the child(ren) who in adulthood have the opportunity to return the favour of caregiving (Kimura & Browne, 2009). *Pakikisama*, which means fellowship, is the value towards maintaining smooth interpersonal relationships, by “going along with the group or majority decision, i.e., conformity” (Pe-Pua & Protacio-Marcelino, 2000, p. 56). It is the idea of sacrificing the self (e.g., self-interest) to avoid conflict and ensure togetherness. *Hiya*, which means shame, is the value towards dignity and the avoidance of shame and it may be expressed, for example, in one’s reluctance to ask for help even though it is needed (Kimura & Browne, 2009).

Lastly, the Filipino culture prioritizes the kinship network over the self, other social relationships, and groups (Kimura & Browne, 2009). The kinship network includes the immediate family members, the extended family on each of the parents’ side, and the godparents

(or *compardrazo*). The perseverance of the kinship network is achieved through the practice of the three key values: *utang na loob*, *pakikisama*, and *hiya*, described above.

**Healthcare setting.** The Philippines' health profile can be characterized as a "hybrid or combination of health situations found in both developed and developing countries," whereby the country is still "struggling to eliminate hunger and infectious diseases while continually battling with non-communicable disease (NCDs)" (Department of Health [DOH], 2012, p. 14). In 2015, the healthy-adjusted life expectancy (HALE) was 61.1 years of age. HALE is the "average number of years that a person can expect to live in 'full health' by taking into account years lived in less than full health due to disease and/or injury" (World Health Organization [WHO], 2018, para. 1). The WHO (2018) shared that the disease trends among the older population in the country were lifestyle related and infectious. Albeit, the former was more prevalent as eight out of the ten most prevalent causes of death, in 2015, for older people were life-style related (e.g., cardiovascular diseases, cancer, and chronic obstructive pulmonary disease) and the other two were infectious (e.g., pneumonia and tuberculosis).

The healthcare system in the Philippines is a mixed public-private system with the private sector playing a parallel role, in providing primary health care services along with additional or specialized services for those who can pay more (DOH, 2012). In the National Objectives for Health 2011-2016 agenda, the DOH (2012) reported that almost half of the country's population utilized private health facilities, but it was largely those who are in the highest wealth quintile and who have insurance coverage. The extensive role of the private sector was further highlighted by the fact that 60% of all the hospitals in the country were privately owned and outnumbered public ones across all four hospital levels. At one end of the spectrum, are level one hospitals, which are the most limited in capacity, operating more as medical clinics. At the other

end of the spectrum, level four hospitals have the highest service capabilities. This disparity in hospital services was more pronounced when comparing the hospitals with higher service capacities, whereby there were four times more private level three and four hospitals than public ones.

The delivery of public healthcare services and the provision, management, and maintenance of government health facilities (including hospitals, rural health units [RHUs], and barangay health centres [BHCs]) are devolved to the local government units (LGUs] (DOH, 2012). The RHUs and the BHCs are the health outposts tasked to provide primary and basic care services. These two public facilities are of integral importance as they are the most frequently accessed health facilities across all regions of the Philippines, except for the National Capital Region (NCR) and Cordillera Administrative Region (CAR) (in which private hospitals and clinics are more frequently used). The devolution of the healthcare system in the Philippines was a result of the Local Government Code of 1991. While health services have improved since the enactment of the code, service continues to vary across the LGUs (including variation in quality and the types of services offered).

Although the health system is decentralized in the Philippines, the DOH (2017) remains the national government agency that guides “the nation’s health system” and is “mandated to lead the health sector to assuring quality health care for all Filipinos” through adopting and implementing health reforms and setting national health agendas (p. 2). For instance, one of the goals of the most recent health agenda (2016-2022) was to continue the push (from previous health agendas) towards *Bayani ng Kalusugan* or universal health insurance (DOH, 2016).

The DOH's (2016) primary strategy towards achieving this goal was through the NHIP, which was called PhilHealth. PhilHealth was introduced in 1995 in response to the high amount



of user fees that citizens were paying for health care services (DOH, 2012). Out-of-pocket spending was the major financing source for the healthcare system. PhilHealth was intended as a safety net for individuals and families who were most vulnerable to poverty, whereby medical challenges with high financial costs could further impoverish these groups. Older people (60+) are eligible for PhilHealth (2014) coverage, and their premiums are subsidized by the national government. Although, older people who are “gainfully employed or who remain to have regular sources of income” are exempt from premium subsidies (PhilHealth, 2014, para. 1).

The goal of PhilHealth was to transition the financing of the healthcare system to a single-payer premium-based insurance scheme (DOH, 2012). The insurance coverage had increased from 5% to 9% between the period of 1997 to 2007. However, at present, the coverage is not extensive and insufficient to serve as the main source of healthcare financing. Thus, in the Philippines, user fees continue as the main source of health financing. Furthermore, out-of-pocket health expenditure had increased, whereby it accounted for 47% of total health expenditure in 1997 and increased to 57% in 2007, whereas, during the same period, national government subsidies decreased from 20% to 12%, and local government subsidies decreased from 18% to 11%.

Pharmaceuticals also play an integral role in the healthcare context of the Philippines (DOH, 2012). The DOH (2012) reported that between 2000 to 2009, the purchase of medicines made up more than half (varying between 65% to 68%) of the total out-of-pocket health expenditures and this share was higher among persons in the lowest wealth quintiles. Additionally, the DOH (2012) noted that the Philippines was the largest pharmaceutical market in the ASEAN region and the cost of drugs in the Philippines was more expensive than in any other country in Asia. As a response to the high costs of medicines, a number of legislations and

policies were enacted that enhanced the accessibility and affordability of quality drugs, including the Generics Act (RA no. 6675), the Cheaper Medicines Act (RA no. 9502), and an executive order that set a maximum retail price allowed for a number of drugs. The *Botika ng Barangay* (BnB) program was another strategy led by the DOH which intended to enhance access to cheaper medicines. The BnB is a community-based pharmacy (which operates without a pharmacist) that provides drugs at a lower price than commercial drug stores. Despite such legislations and initiatives, the costs of medicines (even generics) in the Philippines continue to be higher than international markets.

At the local level of health care in the Philippines, the BHCs play an integral role in the delivery of and access to public healthcare services (WHO, 2011). The BHCs are geographically located within the communities and act as the first point of contact for medical treatment or advice. The services of BHCs are primarily preventative, which include, for example, "immunizations/vaccinations, health, and nutrition education, and family planning services," but health care services and programs may vary across BHCs (WHO, 2011, p. 93). Usually, the BHCs are staffed by "barangay health workers [BHWs], volunteer community health workers, and midwives" (WHO, 2011, p. 93).

In the barangay of Apitong, there was one BHC, but there was no local pharmacy (e.g., BnB) (R. Aguirre [Apitong homecare volunteer], personal communication, April 11<sup>th</sup>, 2016). The centre was staffed by a nurse, a midwife, and volunteers. The volunteers included four BHWs, four barangay nutrition scholars (BNSs), three barangay service point officers (BSPOs), and two homecare volunteers. The focus of the roles and responsibilities of these volunteers included health promotion and communicating to the community members about services and programs offered at the health centre. In Apitong, the focus of the BHWs, BSPOs, and BNSs was

on family planning, maternal, and child care, while the homecare volunteers focused on older people's care in the community, for instance, they supported older people via basic health monitoring (e.g., taking of blood pressure) and helped them to register for the PhilHealth coverage. All volunteers, except for the homecare volunteers, receive an honorarium. The BSPOs and BNSs receive an honorarium of PHP 3,000 (about CAD 74.40) per month (of which PHP 2,000 are from the city's budget, and PHP 1,000 are from the barangay's budget). The BHWs receive an honorarium of PHP 1,500 per month (about CAD 37.20) (of which PHP 1,000 are from the city's budget, and PHP 500 are from the barangay's budget). The BHC is opened Monday to Friday with a nurse, midwife, BHW, and BNS on duty.

### **Results from the Interview Data**

**Theme 1: The participants' income from their employment and livelihood(s) were important but only sufficient to meet daily basic needs.** The older women identified that their employment and livelihood(s) were a central factor to shaping their disaster resilience, as it was the main source and/or sole source of income for their households. At the same time, they identified that the income was not sufficient to meet beyond daily basic needs. One participant shared that in addition to her formal employment as a barangay aide, it was necessary to sell vegetables for additional income:

I am always checking the container of our rice to see if there is still rice for us. If there is none, I will sell vegetables so that I can buy some. With the vegetables, sometimes I can make between PHP 100 to 120 [approximately CAD 2.50-3.00/day], and that is it, but I can already buy a kilo of rice and half a kilo of fish for us.

Similarly, another participant shared how she occasionally does massages for others (in addition to her sari-sari store) to enhance her income use for daily living, as she stated, "sometimes

someone comes here for massages, and that adds up my money for everyday living.” Figure 2 is a photo was taken by this participant that captured her main livelihood source, which was a sari-sari store.

[insert figure 2]

Furthermore, two of the participants added that they also used the income gained from their livelihoods to meet another critical need which was to enhance their income potential. For instance, one of them explained how she saved her profits from her sari-sari store to invest in pig-raising. She stated:

From my sari-sari store, I was able to save PHP 2,500 [approximately CAD 62.00], and I used the money to buy a pig, and now my pig is already big and ready to be sold.

Someone recently asked me to sell it at PHP 6,000 [about CAD 149.00], but I did not sell it because I did not know what to use the money for yet.

Another participant shared that she was always looking for opportunities to enhance the income potential of her canteen. She stated, “I am always thinking of finding money to build my livelihood, like buying more [cooking] pots so that I can cook more food to sell so that I can have more income.”

## **Theme 2: Land Tenure Insecurity Contributed to an Ever-present Threat of Eviction**

Although the participants in the study lived in Apitong for at least 30 years, they did not have any formal title or ownership of the land on which they had built their house. The threat of eviction was ever-present and implicated their resilience. One participant shared her constant struggles with land tenure insecurity and how it has led her to settle in a hazard-prone area (on a mountainside that is prone to landslides), as she stated:

I have lived here since 1969, and because we just did not own any land, we have transferred from different parts of Apitong five times, since being here for over 40 years. It was very tiring that every time we settle down, we would be asked to move. . . . Yes, our house was just down there [pointing to the base of the mountain], but because of the road construction, we were forced to transfer up here.

Figure 3 is a photo taken by this by the participant, which shows the road under construction and the mountain on which she lives on.

[insert figure 3]

Another participant shared her concern that she might need to relocate in the immediate future and how the possible re-location could impact her livelihood:

Yes, I might need to relocate soon, because this place [referring to her house] is also a part of the road as you can see this land here is part of the road, and once the government will build a larger road we will have to move out, but I do not know when, because no one has told me about the relocation or anything. My livelihood is selling food, and it is my advantage that I am here in this location because it is near the road where there are so many people who pass by. My canteen is convenient for people to grab breakfast before they go to work.

### **Theme 3: The Participants' Homes were not Physically Resilient and were Vulnerable in the Face of Disasters**

The participants shared how their current housing structures were impacted in previous disasters and vulnerable in the face of future ones. One participant expressed how she felt about the safety of her house during a typhoon:

Actually, this house is not safe for us if another typhoon happens. If there will be a

typhoon coming, we will be finding a house that is safer. We will go to a neighbour that has stronger walls and a roof that we can stay in. Just like during Yolanda [the local name for typhoon Haiyan], we stayed there [pointing to a nearby house] in that house, because it was new. It was newly built and fully furnished, and the owner allowed us to stay there during the typhoon, and that was why we were safe.

Another participant shared how she wanted to improve her home but was unable to due to financial limitations and how reoccurring disasters thwarted the process of rebuilding, she advised:

I cannot improve my house because I do not have money for it. If I do have the money, I will be building a house that is made of cement and that way it will not be crushed by any typhoons. That is what I want if I just had the money - a safer house. . . . After Yolanda, we made a temporary house, which was this house. Slowly after Yolanda, we were able to build a new part, so that it could be back to how it was before, but then there were typhoon Ruby and Senyang [both occurring on December 2014] that came, and that was why we could not build our house to what it was before. Even up to now it is not yet done.

Figure 4 and 5 were photos taken by this participant to show the structure of her house.

[insert figure 4 and 5]

#### **Theme 4: Kinship Relationships were the Primary Source of Social Support for the Participants, and such Social Support was Reciprocal**

Kinship relationships, namely with adult children and grandchildren were the primary source of social support for the participants. Further two subthemes were identified: participants were recipients of social support and participants were providers of social support. Regarding the

first subtheme, participants expressed how they received various types of social support from their adult children and grandchildren, which included what Kraus (2006) called tangible (e.g., helping you with household chores or errands and includes financial support) and anticipated (e.g., being able to count on someone to help you out if you were sick in bed) forms of support. One participant expressed how one of her sons recently helped to improve her home, by replacing the current roof (which was made up of tarp material) with a stronger one (made of metal sheets). She stated, “even yesterday, [name of her son] built my roof. He changed it to a harder roof.” Another participant shared that she could rely on her kinship support if she fell ill, as she indicated her belief that her “grandchildren would be the ones that help [her] around the house when [she is] sick.”

Regarding the second subtheme, participants shared how they offered social support to their families, in the form of tangible, anticipated, and informational support (e.g., providing advice or information to help you with a problem [Krause, 2006]). One participant described a situation where she provided tangible and informational social support to her son who had health problems. She explicated:

. . . just like my son here, I was the one getting the papers for his operation. I was the one who found a way to have the operation for free, and I found a sponsor [to fund] his operation. During that time, my son could not work, and I could. So, I was the one who supported his family for the meantime.

Another participant shared that selling vegetables (in addition to her formal job) was also a way to support her youngest daughter who was in college through a full scholarship and occasionally asked her for money to pay for school-related costs. She stated, “my youngest comes here and asks for some money for her studies. That is why I still sell vegetables.”

## **Theme 5: Participants Faced Barriers to Accessing Healthcare Services.**

The participants shared how they faced several barriers to accessing health care services, which included healthcare costs and the lack of age-appropriate healthcare services at the local health centre. Regarding the health care costs one participant shared that despite the 20% discount on medicines for senior citizens, she was unable to afford to pay for any medicines or other out-of-pocket costs that would occur as a result of a health visit. She said, “If it is really not needed to go to the hospital, I really will not [go] because I do not have money for the bills [related to] the hospital and for the medicines. Yes, we have a discount, but still, I need to pay for it.” Further, participants shared how they would rely on medical missions to meet their health care needs (e.g., “I am going to medical missions for check-ups. Like if I have a cough, I will be going there to be checked then they will give me free medicines for my cough and free vitamins”). At the same time, the participants provided examples of how accessing such medical missions could be challenging due to time-conflicts and other priorities. One participant, who has cataracts, explained that she was aware of a medical mission conducting cataract surgeries, but could not attend due to time conflict with work, “there was this time that this foundation had this medical mission for the cataract operations, but I was not able to attend that one because I had these duties [referring to her work as a barangay aide].” Another participant shared that the irregularity of medical mission was a challenge

"there are no permanent dates for these. It is just that sometimes I hear it on the radio, and they would say it is on the 9<sup>th</sup> at 9 am to 4 pm or something like that. I have high blood pressure problems. I know [this] because I have attended a medical mission and they gave me free maintenance medicine for it, but I did not maintain the medicine when it ran out. Now, I am just taking the herbals.”



In terms of the lack of age-appropriate healthcare services at the local health centre a participant shared,

Yes [Apitong's BHC has a regular health program], but it is only every Wednesday, and it is vaccination for the babies and pregnant women. It is just for kids, for the immunization, and [prenatal] care for pregnant women, and blood pressure check-up. There is none for seniors.

Another participant echoed that there were no regular senior health programs or services and mentioned the last time she did avail the services at the local health centre was 3-5 years ago for a vaccination. She stated:

There are none [referring to regular health programs or services for older people], but I had this vaccination three to five years ago, and if ever someone was telling me to go there [referring to the BHC] for something, I am going there."

#### **Theme 6: Religious/Spiritual Beliefs and Practices helped Participants to Remain Hopeful about their Current and Future Situations.**

Participants discussed how their religious/spiritual beliefs and practices helped them to remain hopeful about their current and future situations, especially regarding health and livelihoods. One participant shared

Sometimes, I just pray to God, and I ask him to keep my body healthy so that I can work or find a way to have money for myself. Especially since I am a widow and I have no one to depend on - I really need to work.

Another participant echoed this sentiment, by sharing "It is during these times that I am encountering problems, that I just hold to him and pray, because He is the only one that can help me, during calamities, or if I am sick."

## **Theme 7: Gendered Roles, Norms, and Stereotypes Regarding Older Women Contributed to the Participants' Experiences of Ageism and Limited their Livelihood/Employment opportunities**

The participants explained how attending to daily activities (e.g., related to their livelihood/employment or household chores) brought about ageist remarks from others. One participant shared,

When I am fetching water, most people would say that I cannot do that by myself because I am too old to do that, but I am proving them that I can do it. I can carry two pails of water, and I prove to them that I can do it because I just cannot wait here until my grandchildren are home because sometimes they come home late because they are attending school. I am the one who does all the household chores like washing dishes and doing the laundry, so I need water to do it. That is why I am doing it on my own, and also proving them that I still can. I also can cut woods [for firewood].

Another participant expressed how others felt that her job as a barangay aide was not age-appropriate:

Some people tell me that I should apply for other jobs and not as a barangay aide because it is hard work and it is so hot, but I just do not answer back, because I do not want any arguments. And also, I do not allow them to have any part in my decisions.

One participant eluded to how senior women were limited to specific livelihoods, as she stated:

“most women widows here get their incomes from selling, maybe vegetables or whatever else, or sari-sari stores.”

While the participants shared their experiences with ageism imposed by others, they also provided examples of how they internalized gendered roles, beliefs, and attitudes regarding older women and men. One participant shared,

It is easy for senior men to look for a job if they are still strong. I mean guys were born to have the strength, unlike women. It is really difficult [for women] because women cannot do the same things that men usually do. Well, women can still do the laundry for other people, but for seniors like me, it is tiring to do that work. I guess it would be difficult for me to look for a job especially as a senior woman, even if it is just selling vegetables – it is hard work because I am already old.

**Theme 8: Maintaining Independence and Dignity were Important to the Participants and Pathways to Sustaining this was through their Employment/Livelihoods, Living Arrangements, and Social Relationship with Children that were Reciprocal**

The participants shared how they prioritized their independence and dignity and that maintaining such values were related to three factors and processes: their employment/livelihoods, living arrangements, and social relationship with children that were reciprocal. One participant expressed that her livelihood allowed her to not financially depend on her children. She articulated:

I am always thinking about my livelihood because it is the way to have my income so that I will not depend on my children. I am not asking anything from them because I know that they have their own families to feed now. That is why I always want to have my own livelihood, and I do not like asking for money from my children.

Regarding living arrangements, one participant explained that she moved into her own house to avoid personality conflicts with in-laws, as she stated:

I want my own house and not to live in my son and daughter's houses because I do not know the attitudes of their wife or husband. If it is just my daughter or my son, it will be fine. And also, there is the part of marriage where there will be fighting and such, and I do not want to be a part of that.

Another participant shared why she enjoyed living in her own home:

Now that I am in my own house no one can scold me. No one can scold me if I am just sitting, or just sleeping, or just watching TV. I can do whatever I want without anyone telling me to do this and that.

### **Discussion**

The purpose of this study was to explore, in the pre-disaster context (in particular the mitigation phase), the multiple and intersecting drivers that shape the disaster resilience of older women who are widowed, head of household, and living in poverty in a disaster-prone community in the Philippines. In this study the older women constructed that their capacity to build back better after a disaster were related to seven environmental factors and processes (employment/livelihood(s), land tenure, housing, kinship relationships, healthcare disparities, spirituality/religiosity, gendered roles, norms, and stereotypes regarding older women) and an individual one (value towards independence and dignity).

Eight knowledge claims concerning the older women's resilience within the context of disasters are made based on the interpretation of the study findings. Importantly, the socio-ecological perspective of resilience adopted in this study was used to discuss and interpret the findings. For instance, while eight factors and processes are identified, the interactions between them are also discussed (Ungar, 2013). Additionally, recommendations for future research, practice and policy are provided on resilience building interventions, thus supporting the ideas

that resilience is not innate but rather a state that can be fostered (Ungar, 2013). Lastly, the discussion also explores the connections between disaster efforts and longer term sustainable development challenges/issues (Drolet et al., 2015; Mannakkara & Wilkson, 2014).

The first knowledge claim from this study is that limited access to or weak land tenure security can hinder the older women's resilience in the pre-disaster context by subverting mitigation efforts, and in the post-disaster context, when disaster assistance is attached to land titles. None of the women in the study have formal/legal land titles, for which their houses are built on, and this can lead to adverse implications in a pre and post-disaster context. For women in the study this meant having an ongoing fear of relocation or indeed relocation numerous times, most often to a more hazard-prone area of Apitong (the mountainside).

During the pre-disaster context, the older women's capacity to mitigate the impacts of disasters can be challenged by the ever-present threat of (or actual) eviction. For instance, the older women determined that even if they had financial resources to improve their houses' physical structure, efforts/investments directed to this end could be wasted with the frequent need to relocate. Also, as all of the older women in the study were engaged in home-based livelihood(s) as their main source of income, both the threat of and actual eviction could adversely impact their livelihood(s). With respect to the post-disaster context, such as the aftermath of typhoon Haiyan, study participants were unable to avail disaster assistance from one specific NGO because they did not hold a legal land title, and this then negatively impacted their capacity to build back better. This knowledge claim is aligned with research that support the association between land tenure insecurity and a reduced capacity to mitigate the impacts of disasters, including living in hazard-prone and unsafe areas and less likelihood to invest in land

or housing improvement that can reduce the impacts of disasters (Doberstein, 2013; Reale & Handmer, 2011).

The second knowledge claim arising from this study concerns housing. The older women in the study have limited access to financial and material resources which, in turn, contributes to living in houses that are made of provisional construction materials (e.g., the walls and roofs are made from materials such as plywood, tarp, and tin), that are unable to withstand the intense winds or storm surges of a typhoon. This then renders them vulnerable to greater disaster exposure. Furthermore, their limited resources may entail that, in the post-disaster context, the older women's houses are rebuilt to the same conditions as pre-disaster, whereby the physical structures are no stronger than before and continue to remain vulnerable to future disasters. Importantly, while the women in the study expressed interest in investing in more resilient housing infrastructure, their limited income thwarted their ability to make any significant improvements to mitigate the damages to their houses in the face of future disasters. This knowledge claim reinforces the proposition within the literature that housing construction within a disaster context is constrained by land tenure insecurity, and any interventions addressing housing in a disaster context must also address land tenure insecurity issues (Davis et al., 2015).

The third knowledge claim relates to social support and specifically kinship relationships. The older women's kinship relationships are their most valued social relationships and the primary source of social support throughout the disaster management cycle that, for the most part, strengthens resilience. The reciprocal nature of social support was evident in this study, whereby the older women frequently provided support to their kin in both pre and post-disaster contexts. The reciprocity of kinship relationships helped to bolster resilience in both the older women and their kin. This mutual social support was especially crucial in the post-disaster context and, in

particular, during less high-profile disasters, whereby the assistance from INGOs, NGOs, and the government was less pronounced. This knowledge claim supports other research (Lindgaard et al., 2009; McDermott & Cobham, 2012) that highlights this connection, whereby pre-disaster family functioning (e.g., positive/healthy vs. dysfunctional) was related to post-disaster mental health and the capacity of the family members to respond to and recover from the impacts of disasters.

With respect to knowledge claim four, the focus is on healthcare disparities. “Healthcare disparity typically refers to differences between groups in health coverage, access to care and quality of care” (Edlin & Golanty, 2016, p. 437). The older women in this study experienced various barriers to accessing healthcare related to their socio-economic status and age. These barriers can contribute to persistent unmet healthcare needs or delayed care and lead to poorer health and functional statuses, which ultimately hinder the women’s resilience within the context of disasters. Also, pre-existing health conditions/problems can be exacerbated within the stressful environments of disasters and this has been demonstrated in various studies (Dostal, 2015; McGuire et al., 2007)

Knowledge claim five is that the older women’s spiritual/religious faith, beliefs, and practices can contribute to positive mental well-being and adaption during pre-disaster and disaster times; and thus, bolstering their resilience during disasters. The women in the study provided examples of how spiritual/religious faith, beliefs, and practices were used as a resource in both the pre and post-disaster context. Such faith, beliefs, and practices were activated in a way to foster positive mental well-being and positive adaptation through times of adversity and, to foster hope and perseverance, both of which can contribute to positive mental well-being and adaption within the context of disasters.

There is evidence (which is also reinforced by this study) to suggest that spirituality/religiosity can play a key role in shaping and influencing older people's resilience (Cherry et al., 2015; Silva Brown et al., 2010). What is less clear and should be a focus for future studies, is, for example, the ways in which older persons activate their spiritual/religious faith, beliefs, and practices that either serve to bolster or hinder their resilience; what are the various spiritual needs of older persons within a disaster context; what is the role of spiritual care within a disaster context and what are the capacities (and willingness) of humanitarian agencies (specifically secular-based INGOs or NGOs) to provide spiritual care for older persons within a disaster context (Ha, 2015).

Knowledge claim six is that the older women were constrained, in various ways, by socially constructed gendered roles, norms, and stereotypes, that can hinder their resilience within the context of disasters. The older women in the study provided examples of how their roles and tasks challenged the stereotype of the 'weak older women', and hence they were subjected to sexist and ageist remarks from community members. Within a disaster context, such stereotypes about frailty and weakness can be particularly harmful, whereby older women are excluded from potential opportunities to better mitigate, prepare for, respond to, and recover from the impacts of disaster. Also, the gendered norms and stereotypes that dictate that older widowed women should remain single can hinder their capacity to expand (or can strain) their social support networks, a critical driver that bolsters resilience within the context of disasters. The participants' employment/livelihood(s) are also limited by the gendered roles, norms, and stereotypes of older women, as the socially accepted categories of older women's work frequently provide less than adequate income, security, and stability, which are necessary to bolster resilience within the context of disasters. Importantly, these gendered roles, norms, and, stereotypes about older women, are both



internalized by the women themselves and also imposed on them by others. This finding is aligned with literature that found evidence to suggest gender differences exist throughout the disaster management cycle and that these largely hinder women's resilience. Specifically, the unequal burden of roles and responsibilities of women in family, community, and productive work were highlighted in various studies (Drolet et al., 2015; Neumayer & Plumpert, 2007).

Knowledge claim seven, is that resilience, includes building back better pathways for preserving and fostering independence and dignity. The participants in the study both valued and prioritized their independence and dignity, particularly as head of the household. Thus, within a disaster context, building back better also includes a focus on building back better opportunities for them to maintain and foster their independence and dignity, including the ability to make their own income through employment/livelihood(s), to continue to live alone or as the head of the household, and foster kinship relationships in which they are not only recipients of social support but also providers of it.

Within the literature the topic of independence and dignity (or related concepts such as autonomy, choice, and respect) receives limited attention (Blinded for review). However, there are a few scholars who have highlighted in a post-disaster context the need for independence and dignity was strong and perhaps as important as physically tangible basic needs (e.g., food and shelter) (Ardalan et al. 2010; Tuohy & Stephens, 2011). For example, in Ardalan and colleagues' (2010) study the need for preserving dignity and the role as a respected elder in the community helped to explain why their participants were not actively seeking out disaster assistance, namely because such support was provided in a way that conflicted with these personal values.

Lastly, knowledge claim eight is that employment/livelihood(s) can bolster the older women's capacity to build back better after a disaster if such employment/livelihood(s) provide,

for example, an adequate and regular income and opportunities to increase earning potential. Employment and livelihood(s) are the main source and/or sole source of income for the women's households. The participants were neither receiving social pension, nor financial transfers from their kin, that were regular and sufficient to meet their basic daily needs. To understand how employment/livelihood(s) can influence and shape the older women's resilience within the context of disasters, it is important to consider certain features of their work, such as the salary amount or their earning potential, and the regularity in which salary is paid or income is received. For instance, if the income earned by the women is only sufficient to meet daily basic needs, then their capacity to invest in mitigation efforts or to set aside income to meet their needs in the event of a disaster are limited. Therefore, while having employment/livelihood(s) may prevent some of the older women from falling deeper into poverty in the pre-disaster context, it does little to facilitate their capacity to reduce the impacts of future disasters. Furthermore, when a disaster occurs, the older women in this situation have enhanced vulnerability as they have little to no savings to fall back on. Also, they may fall deeper into poverty and be worse off than their pre-disaster situation, as employment/livelihood(s) can be interrupted by disasters and damages to houses can occur.

The key finding in this study is the pre-eminence of employment/livelihood(s) in influencing and shaping the older women's resilience within the context of disasters. There are a couple of reasons to support this essential finding. First, the topic of employment/livelihood(s) is the only factor and process that intertwined with all other critical drivers of resilience. For example, the older women's employment/livelihood(s) were deeply connected to housing and land tenure. All of the women in the study were engaged in the informal work sector and home-based livelihoods, which meant that for the older women, their livelihood(s) could not be

separated from their houses nor the land on which they are built. Consequently, within a disaster context, adverse impacts on their house and the possibility of relocation/eviction also has implications for their livelihood(s). Additionally, even in the discussions that highlighted the role of religiosity/spirituality in shaping and influencing resilience, the topic of employment/livelihood(s) was raised. For example, some of the women noted how their prayer was directed at maintaining good health so that they could continue to work and make an income. The second reason why I suggested that the older women's employment/livelihood(s) play a central role in shaping and influencing resilience within the context of disasters, was the way in which all their expressed future expectations and aspirations were related to their employment/livelihood(s). Maintaining their livelihood(s) was advanced by the older women as a way for them to stay physically active and to remain independent. Figure 6 highlights the interactions between the various themes, and the implications to disaster resilience.

[insert figure 6]

Several scholars argue that the promotion of decent work and sustainable livelihood(s) is a viable approach to both bolster resilience within the context of disaster and to reduce poverty (Drolet et al., 2015; Gaillard et al, 2009). Equitable wages/salary, a focus on well-being and capabilities, diversification, adaptability, decent work hours, health insurance, sick pay, and natural resource base sustainability are features of sustainable livelihood(s) (Le De et al., 2018). Also, the ILO (2016) stated that decent work is the “bridge between humanitarian assistance and development solutions” and advocated that during pre-disaster times, there is a need to create and strengthen decent work (p. 23). The ILO (2016) further contended that “decent work can be a critical factor in breaking cycles of fragility and can lay the foundations for constructions of stable communities affected by disaster and conflict” (p. 23).

The study's key finding concerning employment/livelihood(s) support this idea that developing and strengthening sustainable livelihood(s) and decent work should be a focal point within the DRR field. This type of work not only contributes to resilience building but also to longer-term development goals. Access to sustainable livelihood(s) and decent work, is particularly important to the older women in this study to interrupt their chronic cycle of vulnerability and risks. Literature regarding employment and livelihoods as it relates to older persons are limited, and this study findings is unique and implicates future research, policy and practice in the following ways.

Firstly, research, policy and practice should focus on building resilience with the “forgotten workforce,” who are older people that “have lived a life of poverty, working for low pay in informal sector jobs . . . with no entitlements to pensions or benefits”, and live in contexts with limited or no social welfare protections measures for older persons (e.g., universal pension) (HAI, 2010, p. 7). A more fulsome understanding about the needs, capacities, contributions, and potential of this workforce, and how these factors intersect with resilience, is needed. For example, what are the employment/livelihood options available for older people in specific contexts and how does this impact their resilience within the context of disasters? What are the barriers faced by older people to access decent work and sustainable livelihoods, and the implications to resilience? In what ways does this workforce contribute to the household, community, and the economy, and what are the implications to resilience at the individual, household, community, and wider economic level? What are examples of employment/livelihood options that are both age-friendly and sustainable?

Secondly, the findings suggest that resilience-building interventions in the context of disaster require a holistic practice model that prioritizes intersectionality, working alongside the

disaster-affected population; interventions at the micro, mezzo and macro level (e.g., addressing systems and structures that marginalize and exclude older women); and collaborative work across various sectors. Intervening at multiple levels is necessary to appreciate the aggregate effects and experiences of individuals and to address the root causes of vulnerabilities (such as poverty and gender and age inequalities).

Third and lastly, the findings suggest that resilience building practice, programs, and policies should be developed in ways that both address the collective situation of older persons and remain flexible to adapting to the particular and unique situations of older persons. Older persons are often generalized into one homogenous group. While it is helpful in understanding older persons' issues, challenges, and possibilities in generalized contexts, it is equally important that the particular situations and contexts of older persons are acknowledged. Thus, the meaningful inclusion and participation of diverse voices in the development, implementation, and evaluation of resilience building practices, policies, and research are essential to reflect the diversity of the older population.

### **Limitations**

The small sample size and specific context of the Philippines limits the generalizability of the findings. Further, research participants were selected based on a contact from Apitong that may have led to a biased sample. Albeit, the researcher confirmed the eligibility of the participants (based on the criteria) during the second stage of the extended informed consent process. Further, without the contact from Apitong to help with recruitment the researcher would have unlikely been able to find participants as she was an outsider to the community and a foreigner as well who did not speak the local language. Another limitation of the study was the lack of an independent coder (though other validity strategies were employed: triangulation,

thick description, and member-checking). Lastly, this study only engaged older women. Including older widowed men may have led to a deeper understanding of the gender implications to resilience. Despite these limitations, the findings do affirm, build on, and shed new light to the findings of previous studies; thus, contributing to the knowledge base on older persons resilience within the context of disasters.

### **Conclusion**

The challenges brought about by climate change, disasters, and population ageing in the 21<sup>st</sup>-century context necessitate a focus on resilience building with older persons to address the adverse impacts and realize alternative solutions. Discourses on older people's resilience within the context of disasters are limited in the literature. This study highlights the complex, multi-directional, and dynamic process of resilience building regarding a specific cohort of older women. Specifically, eight knowledge claims were made, based on the interpretation and discussion of the findings:

1. Limited access to or weak land tenure security can hinder the older women's resilience in the pre-disaster context by subverting mitigation efforts, and in the post-disaster context, when disaster assistance is attached to land titles.
2. Limited access to resources (financial and material) can contribute to the older women living in houses that are made of provisional construction materials, which render them vulnerable to greater disaster exposure and perpetuate the cycle of rebuilding the same housing vulnerabilities post-disaster.
3. The older women's kinship relationships are their most valued social relationships and also the primary source of social support throughout the disaster management cycle that, for the most part, strengthened resilience.

4. During pre-disaster times, the older women's experiences of healthcare disparities can contribute to the development or worsening of poor health and well-being, which in turn can hinder their resilience within a disaster context.
5. The older women's spiritual/religious faith, beliefs, and practices can contribute to positive mental well-being and adaptation during pre-disaster and disaster times; Thus, bolstering resilience within the context of disasters.
6. The participants are constrained, in various ways, by gendered roles, norms, and stereotypes about older women (both internalized and imposed on them by others), that can hinder their resilience within the context of disasters.
7. Building back better after a disaster also entails building back better pathways for preserving and fostering the older women's independence and dignity.
8. Employment/livelihood(s) can bolster the older women's capacity to build back better after a disaster if such employment/livelihood(s) provide, for example, an adequate and regular income and opportunities to increase earning potential.

The key and unique finding was that among the eight factors and processes identified, employment/livelihood(s) play a preeminent role in influencing and shaping the older women's resilience within the context of disasters. Importantly, the findings point to how resilience within the context of disasters is interconnected with wider development issues in the pre-disaster context. Resilience building within the context of disasters should, therefore, be seen through a development rather than a relief lens to be sustainable and to address the root causes that hinder resilience.

Table 1

*Descriptive Characteristics of Participants*

|                                              | <b>Participant 1</b>                                                                                    | <b>Participant 2</b>                                                                              | <b>Participant 3</b>                                                         | <b>Participant 4</b> |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------|
| <b>Age</b>                                   | 81                                                                                                      | 68                                                                                                | 68                                                                           | 69                   |
| <b>Highest level of education obtained</b>   | Grade 6 (6 years)                                                                                       | Second year of highschool (11 years)                                                              | Grade 6 (6 years)                                                            | Grade 6 (6 years)    |
| <b>Religious Affiliation</b>                 | Roman Catholic                                                                                          | Roman Catholic                                                                                    | Roman Catholic                                                               | Born Again Christian |
| <b>Living Arrangements</b>                   | Alone                                                                                                   | With dependent grandchildren                                                                      | With dependent grandchildren                                                 | Alone                |
| <b>Livelihood Sector</b>                     | Informal                                                                                                | Formal and Informal                                                                               | Informal                                                                     | Informal             |
| <b>Source(s) of livelihood or employment</b> | Sari-Sari Store, selling vegetables from her small farm, making and selling snack, and raising chickens | Barangay aide (custodial work), selling vegetables from her small farm, and selling homemade fans | Operating as a food vendor, cooking and selling prepared food from her house | Sari-Sari Store      |
| <b>Household income</b>                      | PHP 250/day (USD 4.75/day)                                                                              | PHP 60/day (USD 1.20/day)                                                                         | PHP 600/day (USD 11.50/day)                                                  |                      |
| <b>Recipient of Social Pension</b>           | No                                                                                                      | No                                                                                                | No                                                                           | No                   |
| <b>MPI Indicators (deprivations in...)</b>   |                                                                                                         |                                                                                                   |                                                                              |                      |
| <b>Income</b>                                | No                                                                                                      | Yes                                                                                               | No                                                                           | No                   |
| <b>Education (2 indicators)</b>              | No                                                                                                      | Yes (1/2)                                                                                         | Yes (1/2)                                                                    | No                   |
| <b>Health (1 indicator)</b>                  | No                                                                                                      | Yes                                                                                               | Yes                                                                          | Yes                  |
| <b>Living Standards (6 indicators)</b>       | Yes (4/6)                                                                                               | Yes (5/6)                                                                                         | Yes (3/6)                                                                    | Yes (3/6)            |



All Figures

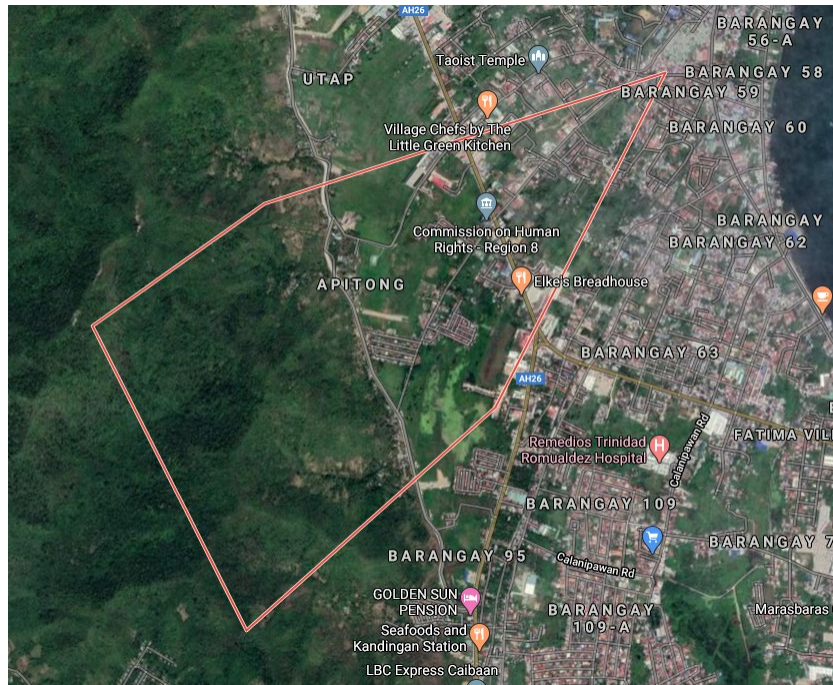


Figure 1. Google (n.d.) Earth Map of Research Site (Apitong, Tacloban City)



Figure 2. One of the participant's sari-sari store



Figure 3. A view of the mountain, where one of the participant's live



Figure 4. A Side View of one of the Participant's House



Front View of one of  
Participant's House

Figure 5. A  
the

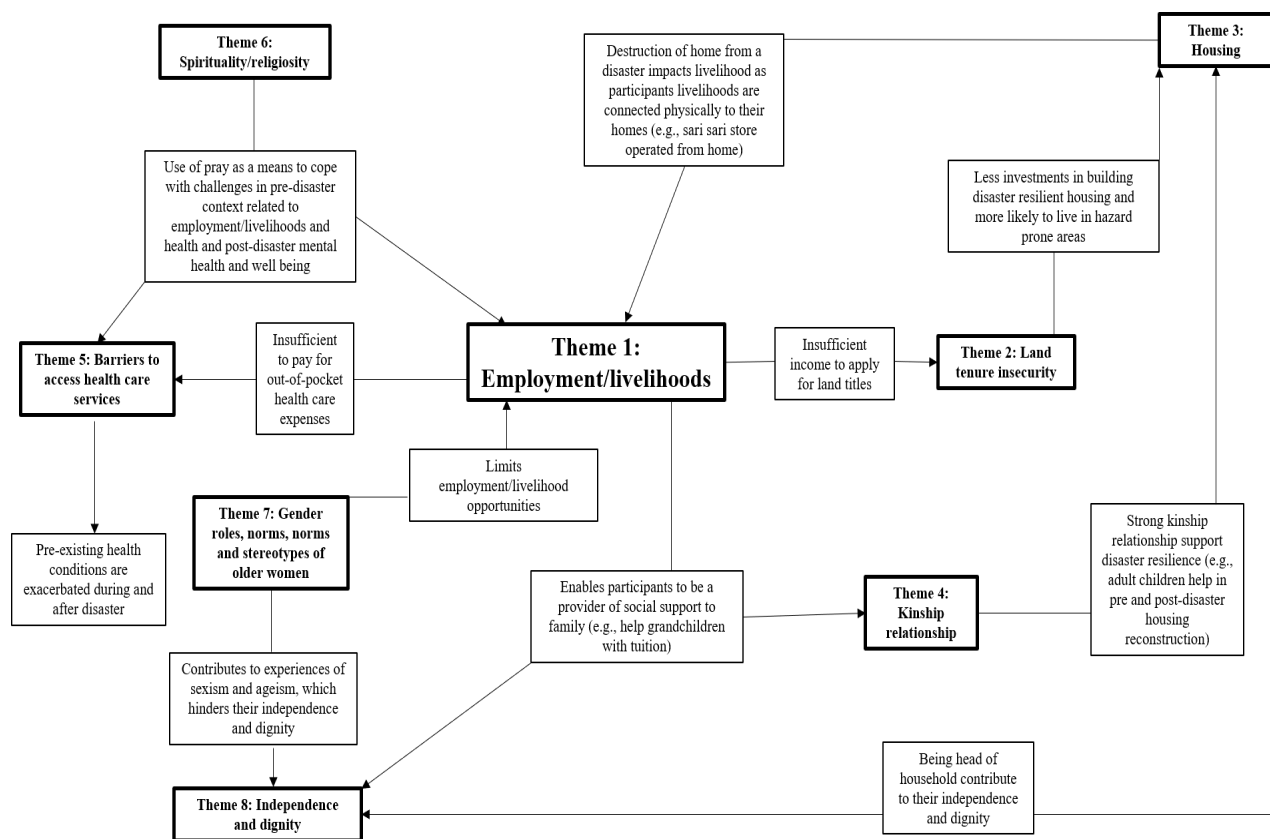


Figure 6. Relationship between Themes